

# ACADEMIC AND PROFESSIONAL PEDAGOGY: A CONCEPTUAL PERSPECTIVE

I.M. NTSHOE AND U.D. HOLZBAUR

## Abstract

This paper examines the discourses on technical vocation education and training (TVET) adopting a comparative perspective. In particular, we critically analyse the notion of academic and professional pedagogy to embed curriculum and pedagogy at Universities of Technology (UoTs) in South Africa and at the Central University of Technology (CUT). This is conducted by analysing the term, vocational pedagogy within the context of Universities of Applied Sciences (UASs) and Universities of Technology (UT) in Germany, and Universities of Technology (UoTs) in South Africa, respectively. We then proceed by exploring the idea of an Institute of Pedagogy at the Central University of Technology (CUT) that will become a centre of excellence where research on professional pedagogy will be undertaken by staff and students from CUT and other institutions, as well as other bodies, including government and the employer/industry.

**Keywords:** Academic and Professional Pedagogy, Universities of Technology, conceptual perspective

## 1. INTRODUCTION

Vocational education has been known in different contexts and historical epochs as technical and vocational education and training (TVET), but has developed to an academic level and become an alternative to general academic education. This type of education is intended to provide employability skills, especially in the current change in the labour market of the twenty-first century.

Although technical/vocational education and training (TVET) has occupied a sizable space of research, there seems to be a paucity of research on the conceptualisation of the term, the relation between theory and practice in this field, and models of TVET that improve practice. It is also true that although some studies have focused on vocational pedagogy at a much deeper level, often the underlying pedagogies are subsumed and therefore lost in the general discussions about these subjects, including all the technical details of implementation. As opposed to vocational pedagogy, the term Academic and Professional pedagogy has been coined to describe offerings and programmes offered in Universities of Technology (UoTs) in South Africa. The purpose of these institutions is to prepare students primarily for particular professions and the world of work.

This discourse evokes a different set of questions from those that one would expect when one deals with the critiques of typologies and models of TVET (Department of Education 2007; Du Pre 2010).

A comparative perspective has been adopted to analyse the discourses of TVET including how the term is conceptualised, reasons for introducing it in various countries and in South Africa. In particular, discursive inquiry has been used to critically analyse competing views on TVET and to analyse the discourses and conceptualisation and discourses of academic and professional pedagogy at CUT. Literature review and document analysis provided the data, themes and issues discussed in the paper.

## **2. HISTORICAL AND THEORETICAL ANALYSIS**

A brief outline of vocational pedagogy is necessary to foreground the discussion on the proposed Academic and Professional Pedagogy (APP) as a possible scholarship niche area in UoTs. In the historical context, Technical and Vocational Education and Training (TVET) has been mainly restricted to practical training that has always been considered inferior to academic education. In the recent context, with the challenges of supporting economies with the production of highly skilled people, it has become necessary to consider the integration of technical and practically oriented education into academic education.

### **2.1 Philosophies underpinning TVET**

Policies on TVET in former British colonies have always been shaped by a philosophy that is different from that pertaining to European countries. Embedded in this philosophy is the separation of general, from TVET. Conversely, the German educational system has always had a low percentage of academic training and a strong dual educational system; the educational system in the British world which did not know the TVET as training for highly skilled practical workers.

Vocational education in the United States which had its origins in the dawn of the 20th century was an outgrowth of an ideology of social competence and a movement that connected the subject with societal progress (Kantor 1986; Kliebard 1999). While there was debate (notably the contest between John Dewey and David Snedden) around the perceived and undue influence of industrialists upon the curriculum and schooling, the place of vocational knowledge as knowledge belonging in the curriculum was never an issue (Lewis 2009). While Dewey challenged the vocationalist establishment of the day, far from rejecting vocational education as education, he embraced it on the grounds that schools had to reflect movements in the society at large.

In his *Democracy and Education* he devoted a chapter to vocational education in which he set forth a transcending conception of it, suggesting that it should be based not just on economic work, but also on the work of being a parent, or a contributing member of one's community (Dewey 1916). Dewey framed his conception of vocational education in terms of social reconstruction so that students would not simply accept the industrial status quo as presented in the curriculum, but would challenge it. In the United States, there has been a new appreciation of Dewey's ideas, leading to a new vocationalism that blends academic and technical content (e.g. Grubb 1996).

Ryle (1949) and Oakeshott (1962) inserted the notion of vocational pedagogy within historical, cultural and social contexts by epitomising the Anglo-Saxon notion of skill as practice and the minimal role of theoretical knowledge. For Oakeshott, technical knowledge underpinning every practical activity is understood as a rigid set of rules which is applied in an unreflective way. Practical knowledge that often underpins curriculum design, especially for TVET programmes, refers to a person's ability to act within a social environment. Ryle goes one step further by completely disconnecting theoretical knowledge, what he refers to as 'knowing what', from practice ('knowing how'). He maintains that while practice may initially be based on knowledge or rules, these are soon no longer reflected upon, but become second nature. He goes on to say that it is possible to learn an activity without ever learning the rules at all and that more often than not, how is learnt by practice, unaided by theory (Ryle 1949).

However, TVET has always carried a lot of baggage inherited from the colonial period. For example, economists of education including Mark Blaug (1973) and Phillip Foster (1965) have written extensively on the subject in the contexts of India and Africa in general. Their findings were that vocational education was indeed a fallacy and that rather than having a dislike of manual work and agriculture, Indian students had critically assessed that at the time, general academic education was paying, compared to vocational education. In the South African system, TVET was part of the grand apartheid ideology of ensuring that blacks remained hewers of wood and drawers of water. Hoppers (2010) argues that the word vocational carries a lot of baggage of the type of education that was intended to keep the colonised people in subordinate positions, as it focused exclusively on manual work, crafts and agriculture. Hoppers however, did not have a problem with the scope, objectives and goals of the Institute, but raised some doubts about the term, vocational and proposed that the word 'life-long learning' should be added. In South Africa, and probably elsewhere, technical, vocational education and training (TVET) is normally regarded as a sector that better prepares students for the requirements of the labour market and therefore gives them a better start for employment than other forms of training. Accordingly, technical institutions for higher education have been created to impart technical vocation skills at tertiary levels; these were named Polytechnics, Technikons (South Africa) or Engineering Colleges (Ingenieurschule, Germany).

## 2.2 South Africa

The educational system in South Africa has strong roots in the British system with TVET in South Africa being primarily the responsibility of technical colleges and the new Further Education and Training (FET) colleges recently created. Firstly, these cope with the burgeoning demand for tertiary education, given the increasing number of students qualifying for tertiary education. Secondly, FET colleges have been created as a response to the challenges of a shortage of skills which are needed for economic growth, as well as, as a response to the problem of unemployment, especially by school leavers (Department of Education 2008).

## 2.3 Germany

In Germany, the term vocational pedagogy (Berufspädagogik) is used mainly for both the school and industry related parts of dual education in professional education that is well established in Germany. With its historical roots in the mediaeval guild system, this dual system involved apprenticeship and formal learning in school. Classically, it leads to the 'Geselle' (bachelor, apprentice) and 'Meister' (master craftsman), but nowadays, is the basis of any education outside the general-education school track (leading directly to the right to study at a university, matricA-levels).

The professions in this system range from the technical professions (Techniker), nurses, physiologists and medical assistance to professions in economics such as an accountant or clerk. Most professions that lead to a certificate or diploma are taught in the dual system and only academic education (leading to a Bachelor's degree) is taught at a university.

Universities of Applied Science in Germany have been created to provide training that focuses on the world of work. These have evolved from Ingenieurschule, (Technical College, final degree of a graduated Engineer Ing. (grad)) via the Fachhochschule (final degree of an Dipl.-Ing) to the Hochschulen (Universities of Applied Science, final degrees Bachelor and Master). With this development, the focus has also been expanded from engineering to management, economics and many other disciplines, while other Universities of Applied Sciences have emerged from various backgrounds (Design, Social Science, and Administration). In the current situation, Universities of Applied Science integrate theory and practice, and are challenged from both sides.

In the German federalist system, the Bundesländer have their own legislation and practice for their university system. Thus, Germany has 16 different systems. The traditional universities are moving more and more towards more practically oriented courses such as Engineering or Applied Mathematics.

The Baden Württemberg system of Universities for Dual Education (Cooperative State University, formerly Berufsakademien) is rather special, in that it carries the principles of dual professional training to an academic level. Students are to be paid during their whole study time; they work and study in alternating three months and graduate in three years. This system was strongly supported by the former Christian democratic/ liberal (free market-friendly) coalition in Baden-Württemberg. The eight former Berufsakademien are organised as one state university. Thus, the Universities of Applied Science in Baden-Württemberg are challenged from two sides: by the universities that have purely scientific education and attract students with the promise to have them study their subject of interest; and by the Cooperative State University that offers a classical dual education, as well as a Bachelor's degree. In Germany for example, there has been some concern about whether the skills of the Dual System are in keeping with the demands of the contemporary global knowledge economy (Idriss 2002). The multi-dimensional competence-approach on the other hand, is based on a model of the employee who takes an active role in constructing knowledge. Competence is understood as performance in the workplace, i.e. the ability to deal with complex work situations by drawing on the multiple resources that the employee brings to the workplace. Thus, competence is a holistic notion, relating to the whole person and including different dimensions (including occupational, personal and inter-personal). These models have clearly been shaped by historical, social, industrial and ideological inheritances in various countries.

TVET in the USA and Germany grew organically as a natural concomitant of industrialism and societal progress and was backed by supportive ideologies. In the case of Germany, Christopher Winch points out that vocationalism is linked with liberal education via the idea of *Bildung*, a character forming notion in which, much like the Benedictine ideal, work is central. Thus, German vocationalism has a different colouration from that in Anglo-Saxon countries, since from its origin it has been grounded in holistic notions of progress that are traceable to the thought of Friedrich List. According to Winch (1998) there are two rival conceptions of vocational education embodied in the works of Adam Smith and Friedrich List, respectively (Oxford Review of Education 24 (3) (1998), 365–378. Full Text via CrossRef | View Record in Scopus | Cited By in Scopus (5)Winch (1998)). At the core of List's conception of political economy is the notion of Productive Powers; that is “all the means by which a nation generates, preserves and develops its ability to produce”. Thus, “The economy cannot be understood as a separate entity from the law, morals, religion and the state that affect it profoundly as well as being affected by it” (Winch 1998, 369). German vocationalism therefore, has a strong civic dimension. VET incorporates a substantial element of general education based on the notion of citizenship. In Germany and the Netherlands, this builds upon Humboldt's notion of *Allgemeine Menschenbildung*.

An educational reformer in 18th century Germany, Wilhelm von Humboldt advocated an education system that would ensure the full participation of citizens in society through the provision of general education (Benner, 2003). Central to his idea was the notion of 'learning to learn': "through the development of key faculties individuals are enabled to acquire knowledge throughout life" (Benner 2003, 180).

Thus, more than technical competence, skill confers on its holder a special badge of citizenship. In assessing the contribution of Georg Kerschsteiner to German Vocationalism, Winch (2006) sees elements of List's philosophy in the work of Kerschsteiner who was interested in the whole person. He advocated that vocationalism had a social dimension; that of practical experience, which was a way of uniting propositional and practical knowledge (Lewis 2009).

Education at Universities of Applied Science is above all, academic education. The typical structure of a consecutive programme in German universities differs among the various types of universities (Universität, Fachhochschule, Duale Hochschule, Hochschule). Nevertheless, the most intensive and profound integration of theory and practice is in the Universities of Applied Science (formerly Fachhochschulen). With an ongoing increase in demand for graduates who poses strong skills required by industry, on the one hand, and corresponding strong technical and academic level on which these applied skills are embedded, the Fachhochschulen) have become universities (Universities of Applied Sciences in Germany are parallel to the Universities of Technology in South Africa).

### **3. VOCATIONAL AND ACADEMIC EDUCATION – STUCK IN THE MIDDLE**

The discussion of vocational education seems to imply that there is an either-or in education. This assumption ignores the approach that sees education as an ongoing process from early childhood to retirement. Consequently, through the mechanisation of labour, there are only a very few jobs that do not require any intellectual skills. Communication – interpersonal or by technical means; planning in various time scales; and the responsibility for results are part of most jobs. Woodcutters and soldiers use high-technology equipment; cleaners take responsibility for environmental impacts. A brief reference to the USA and European conceptualisation on vocational pedagogy is necessary before discussing the issue in South Africa.

#### **3.1 The role of Universities of Technology (UoTs) in skills development in South Africa**

Within the refigured system in the higher education sector in South Africa, traditional university types will continue to primarily produce knowledge and research.

Conversely, UoTs are mainly responsible for the provision of technical and professional education with the academic component taking a back seat; while comprehensive universities offer both university, as well as technically professional programmes (Muller 2009; Republic of South Africa 2007). Their focus is therefore mainly on the application of knowledge for specific careers and professions, sometimes at the expense of general academic knowledge that is transferable to other situations. Universities of Technology are a new type of institution and have as their foundation, the former Technikons which built a solid reputation in providing career-oriented programmes (see Council on Higher Education 2000). Their purpose is to prepare students for the world of work, with their research being of an applied nature, thus linking with industry. This ensures that Technikon programmes remain relevant and up-to-date; that their graduates are familiar through work-integrated learning with the way industry functions (De Pre 2010).

'Professional' in the context of higher education is often erroneously used in a narrow sense of qualifications and programmes offered by UoTs and other tertiary institutions, other than traditional universities. This definition of professional is, however, misleading as conventional universities were initially created to provide professional degrees including law and medicine.

In addition to the creation of FET colleges is the post-binary which resulted in institutional mergers, institutional incorporations and the creation of what came to be known as UoTs. The latter are erstwhile Technikons that have graduated to the status of universities, though not expected to retain their distinctiveness. Thus, the debate since the creation of these institutional types has been whether UoTs and indeed the so-called conventional universities should continue to espouse the tenets and canons of Humboldt's and Newman's notions of a university by keeping government and labour at arm's length even in the current contexts of information, technological societies and the influence of the global economy on South Africa.

Trends in South Africa suggest that a general view endorses the current Department of Higher Education and Training (DHET) sector under the Zuma's administration for UoTs to reclaim their distinctive character. This move is particularly driven by the UoT communities themselves, the labour market and other stakeholders, including local and regional industry. Accordingly, there is a general agreement that UoTs should ideally not mimic traditional universities in terms of their visions, missions, curricula, teaching methods and assessment. As a result of these ideological and philosophical shifts, UoTs and in particular CUT, has committed to developing a competent workforce for sustainable economic growth. The assumption is therefore, that human resource development (HRD) through well-planned education and training initiatives, can contribute to promoting the interest of individuals, enterprises, the economy and society at local, regional, provincial and national levels.

The dramatic outcomes of the process of a reconfigured higher education landscape has been the abolition of the binary policy that created, inter alia, institutional types and differentiation in terms of purpose, missions, values and offerings. One of the new creations of the reconfigured landscape is the institutional types (the UoTs that currently sit uncomfortably between post-matric institutions, such as Further Education and Training (FET) and conventional universities). The key questions since the creation of UoTs have been how these new institution types differ from other post-matric offerings, such as Further Education and Training (FET) and from conventional universities and what the relationship is or should be between UoTs, FETs and conventional universities. Central to the notion of institutional differentiation is the symbiotic relationship between the role of the knowledge-based (disciplines) component and the contextual/sectoral occupational fields in UoTs. In order to develop its distinctive features as a UoT within the particular contexts of globalisation, national, and international imperatives, the management of the Central University of Technology has created an office of Academic and Professional Pedagogy (APP) to initiate the process of developing an alternative framework or guidelines to embed its curricula development processes and the organisation of offerings, teaching and learning and research.

In line with its vision encapsulated in its Vision 2010-2014 and 2015-2020 of working with the government, CUT takes an interest in the government's skills development initiatives. In particular, the institution is seeking to enhance goals 3 and 4 of the Draft Skills Development Plan Output 3: Increase access to occupationally-directed programmes in needed areas and thereby expand the availability of intermediate level skills (with a special focus on artisan skills). Output 4: Increase access to high level occupationally-directed programmes in needed areas (STEPS 2010).

The envisaged Institute is to give effect to aspects of the STEPS process by developing a framework on which CUT can embed its research and innovation, teaching and learning and, community engagement. Three issues of the STEPS that will be the focus of the Institute are:

- a) Developing a common understanding of the philosophy that underlies CUT's curricula and makes them distinctive from other UoTs and other universities;
- b) Development of generic expectations regarding content and structure of transformed curricula in which its philosophy is embedded;
- c) Relevant classroom methodologies, together with social, technological and other classroom environments (Mthembu 2010).

In order to pursue this purpose, the proposed framework underlying the proposed Institute is to transcend the rhetoric of making UoTs responsive to changing conditions by providing career and occupationally directed offerings



that are in line with the expectations and requirements of the labour market, graduate attributes etc.

The current functional distinctions between universities and UoTs is governed by the Higher Education Qualification framework (Republic of South Africa 2007) which recommends one type of institution that offers primarily, knowledge in disciplines that are sources of knowledge and therefore research-based qualifications and, another that provides primarily for occupational fields and the applied side of knowledge and qualifications.

### **3.2 CUT within a particular region and province**

As a UoT in the region, CUT services the Free State Province which is mainly rural in terms of its employment opportunities and mobility, as well as the type of employment and the nature of the market. These regional imperatives are part of the broader socio-economic situation of the two types of economy, namely, the first and second economy. Within the geo-political setting, CUT is viewed as a poor cousin of the University of The Free State and therefore enrolls firstly, students who cannot get placement in mainstream programmes at the UFS because of their matric scores. In this sense therefore, CUT provides offerings in occupational fields primarily for the first economy and yet the majority of its students come from the so-called second economy. It is also worth noting that although the majority of students are from the second economy, CUT is still producing a small percentage of black students in engineering that is vital to the development of the first economy in the Free State Province. This phenomenon could be attributed to the quality of the school sector that produces students with very poor matric results in physical science and mathematics which are keys to becoming engineers.

Vocational Pedagogy in the context of this paper transcends narrow, technicist versions of vocationalism and technical education, most of which are inherited from other settings (Habermas 1976). Conversely, Vocational Pedagogy in this concept paper is embedded in the ontology, episteme and philosophies of poststructuralism. One of the key features that will be flagged in the envisaged theoretical and conceptual framework is the often neglected human element in vocational and technical education encompassing the non-cognitive dimensions of vocational education (human values, civic responsibilities, deepening of democracy, diversity, ethics and virtues) for the sustainable transformation process of societies. Vocational Pedagogy is therefore used in a much broader sense of recontextualisation of Professional Pedagogy that recognises the centrality of ontology, episteme and philosophies and ideologies underpinning commonly used terms such as: employable skills; work integrated learning; experiential learning; generic and job specific skills; as well as technical and practical skills.

## **4. CONCEPTUAL FRAMEWORK FOR VOCATIONAL PEDAGOGY**

### **4.1 The need for a conceptual framework**

The need for a conceptual framework has never been greater, given the state of the workplace and society, together with the demands being placed on workers and citizens for technical and higher-order thinking skills. Lewis (1998) posits that two related forces shape policy: discourse, and the curricula in vocational education: (1) a global economy in which economic competitiveness is presumed to be linked with work force readiness; and (2) the changing nature of skill, work, and jobs, brought largely by the impact of technology and by high-performance work organizations. Any conceptual framework of vocational education (career and technical education) should embrace these influences.

### **4.2 What is a theoretical and conceptual framework?**

A theoretical framework is a theory that underlies a project. This means that the project will be based on the models underlying the theory. A conceptual framework is a model that serves as a basis for the object. The conceptual model is a basis for the operative tasks.

The conceptual framework

- for an organisation/institution
- for a process/enterprise/project

Organisational theory and culture

- artifacts and objects -> curricula, research programme
- practices and guidelines -> framework
- values and assumptions -> normative basics

#### **4.2.1 The conceptual framework for an educational system**

Miller explains that a conceptual framework contains (a) principles or “generalizations that state preferred practices and serve as guidelines for program and curriculum construction, selection of instructional practices, and policy development,” (b) philosophy which “makes assumptions and speculations about the nature of human activity and the nature of the world... Ultimately, philosophy becomes a conceptual framework for synthesis and evaluation because it helps vocational educators decide what should be and what should be different” (1996, xiii).

## 4.2.2 The conceptual framework for a profession

A conceptual framework should accomplish several things: (a) Establish the parameters of a profession by delineating its mission and current practices; (b) account for historical events to allow an understanding of how we got to where we are; (c) establish the philosophical underpinnings of the field and underscore the relationships between philosophy and practice; and (d) provide a forum for the understanding needed or the actual directions of the field. A conceptual framework does not necessarily solve all problems or answer all questions present in a profession, but it should provide a schema for establishing critical issues and allowing for solutions, either conforming the problem to the framework or vice versa (or perhaps both). Frameworks should be fairly stable but have the capacity to change over time and adapt to external factors.

## 4.3 How to define a conceptual framework

Some caveats may be raised about the description of the distinctive characteristics of UoTs. Firstly, career-focused qualifications of UoTs, often described as their distinctive features, remain conceptually illusive and puzzling. It is never clear for example, how the relation between knowledge and its application is reflected and more importantly, whether graduates from these institutions can compete with their counterparts from conventional universities. The challenge seems to be on the ability of curricula designers in UoTs to go beyond the rhetoric of providing graduates with the skills demanded by the market and develop guidelines on how to deal with issues of the tension between knowledge and its application.

## 5. THE TERMS OF REFERENCE (ToR) AND AIM OF THE INSTITUTE FOR APP

According to the key outcomes of discussions with experts in the area of vocational pedagogy both nationally and internationally, the term Vocational Pedagogy has been changed to Academic and Professional Pedagogy (APP) as a niche area in research and innovation, teaching and learning, and community engagement embedded in a particular framework. Vocational Pedagogy both in South Africa and internationally is understood to distinguish between education and training that focuses on vocation training that is intended to produce people with specific trades, technical skills and artisans, as opposed to those in academic streams. Vocational training and pedagogy is therefore used to describe this type of training at school, technical colleges, and Further Education and Training in South Africa. The name Academic and Professional Pedagogy was found to be more appropriate to describe the type of curricula and pedagogy in Universities of Technology.

## 5.1 Aim

The aim is to create and initiate a process of introducing a scholarly niche in Academic and Professional Pedagogy (APP) (Vocational Pedagogy) that will impact on CUT's core business comprising: teaching and learning; research and innovation; and community engagement. This process would ideally be carried out by an institute which would ultimately become a centre of excellence for CUT staff and other institutions. This aim has three sub-aims:

- The overarching objective of the APP Office is therefore to initiate and conduct research on professionally and occupationally focused qualifications at CUT;
- The creation of a space for deliberating fundamentals and substantive curricula issues of professional and occupational focused qualifications offered at CUT;
- Initiating and undertaking research that would yield outcomes-impact on some key aspects contained in the Bridging document and CUT Vision 2020, Terms of Reference.

## 5.2 Terms of Reference

The ToR of the Institute and therefore the place of the Institute for Academic and Professional Pedagogy are in the operationalisation of the comments in the Strategic Transformation of Education Programmes (STEPS) articulated by Mthembu 2010. In the STEPS Bridge document, Mthembu points out that in our efforts to attempt to claim our distinctiveness we need to:

- Develop a common understanding of the philosophy/epistemology-/framework to embed CUT's curricula and make them distinctive from other UoTs and other universities;
- Develop generic expectations regarding content and structure of transformed curricula embedded in our philosophy and epistemology;
- Develop relevant classroom methodologies (teaching and learning) that are aligned to the framework with social, technological and other classroom environments (Mthembu 2010).

Central to Mthembu's statement is the kind of graduates CUT wishes to produce; in other words, the distinctiveness of CUT graduates from Further Education and Training (FET) and from conventional universities and how CUT needs to position itself to contribute to the challenges in the region.

## 5.3 Scope

The scope of the Institute is defined by the research area of professional pedagogy that is employed within the university.

- Development of a common approach to research, teaching and learning, and assessment for the Central University of Technology;
- The role of Academic and Professional Pedagogy as a niche area in research, teaching and learning and assessment;
- The relation between curricula and the world of work for CUT;
- The role of stakeholders in the development of curricula for Universities of Technology.

The main fields of research in the field of professional pedagogy outside the institute will be:

- All activities concerning research and education in professional pedagogy will be located in the school for teachers' education; and
- Research on classical vocational pedagogy as applied in FETs and the interface between FETs and Universities of Technology.

#### **5.4 APP as a component of university strategy**

Vocational Pedagogy is one of the areas focusing on introducing Vocational Pedagogy and the world of work as a scholarly niche area, which would encompass research and innovation, teaching and learning, and community engagement. The purpose of the APP Office is therefore to create, conceptualise and operationalise an Institute for Academic and Professional Pedagogy at the Central University of Technology.

In a quest to create its own identity, the Central University of Technology (CUT) with Vision 2020 intends not only to reclaim its distinctiveness as a UoT, but also to create its own distinctive features within the context of the Free State Province in which it is located, as well as addressing the national imperatives of economic growth and development. It aims to contribute to the development challenges in the central region in South Africa, especially by producing "quality social and technological innovations" (Mthembu 2010). Central to Mthembu's statement is the kind of graduates CUT wishes to produce; in other words, the distinctiveness of CUT graduates from Further Education and Training (FET) and from conventional universities and how CUT needs to position itself to contribute to the challenges in the region.

In the light of these distinctive features of CUT, a proposed guideline or framework should not only be contextualised within the broader South African higher education landscape, but also recontextualise CUT within the region. Such a proposed guideline needs to be seen within the broader geo-political economy of the post-apartheid setting of expanding access to tertiary education by creating a UoT to respond to the burgeoning demand for tertiary education in the Province. Within the broader South African context, CUT needs to be seen within the particular geo-political economy of the Free State Province which shares its boundaries with the Eastern Province, the North West, the Northern Province and neighbouring Lesotho.

Furthermore, CUT has been created to provide students with a range of programmes, primarily occupational, that are not provided by the University of The Free State.

## **5.5 Framework**

### **5.5.1 Education**

The proposed framework within which the Centre for Academic and Professional Pedagogy should be situated asserts a conscious realisation that UASs and UoTs occupy a unique position in society, in that they are able to satisfy the public and private dimensions of higher education. Accordingly, this explains why economic growth and the general lifestyles of citizens in countries that have invested in UASs are healthier than in those countries where investment in this sector has been very weak and haphazard; or where the sector continues to be seen as a second or third option by students.

The proposed framework is therefore underpinned by the following assumptions:

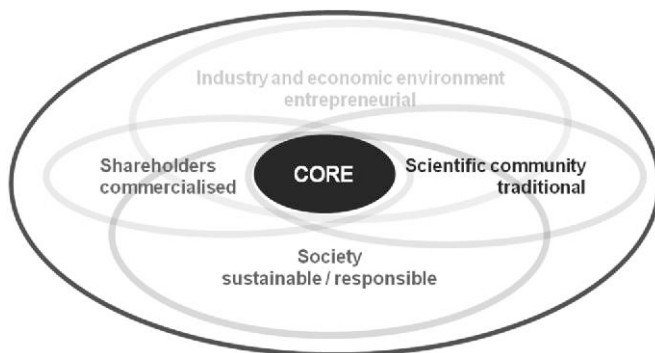
Firstly, CUT as a UoT has, as its core function, the production of graduates primarily for various careers, and to some extent, for various professions. Second, because CUT and UoTs are no longer a Technikons, these institutional types have a responsibility to the educational aspects of its offerings that are different from those offered by Technikons. This means that CUT has to incorporate the public good in its offerings in order to promote social equity and social justice on the one hand, and engage in entrepreneurial activities on the other.

### **5.2.2 The responsible university**

Because of the dual-facing challenge of providing occupationally directed programmes and professions, these institutions are seeking to be responsive to the needs of stakeholders and therefore qualify them to be called responsible universities; that apart from responding to the social imperatives of society, they also engage in entrepreneurial activities. Holzbaur and Lategan (2011) indentify the entrepreneurial or commercialised university as an antipole for understanding the concept of a responsible (sustainable) and a responsive university.

Responsibility means to take care of possible future developments and to act responsibly. This implies precaution with respect to the possible development paths of a system, but also to plan and act in order to influence future development. The principle of responsibility (Jonas 1984) or the precautionary principle, states as the decision criterion that any action should be compatible with the permanence of 'real' human life on earth.

If we interpret this as the permanence of human culture or of liveable life, it is, in essence, the Brundlandt definition of sustainability, while responsiveness means listening to the needs of stakeholders. Figure 1 is the schematic representation of a responsible university.



Source: Lategan & Holzbaur 2010

The summary of the Holzbaur/Lategan scheme is the imperative, that whatever adjective is added, the core should always be the noun (substantive) university.

### 5.5.3 Excellence

The Institute for Research in Academic and Professional Pedagogy (IRAPP) has been specifically created to promote and enhance quality and excellence in research and innovation, in teaching and learning and in community engagement as a scholarly niche area at CUT. The IRAPP will therefore play a pivotal role in promoting excellence, not only in academic programmes at CUT, but also in leading projects that promote excellence at the institution.

### 5.5.4 The sustainable university

As mentioned previously, the responsible university is, in most aspects, also a sustainable university. Education support for sustainable development is based on the main aspects of sustainable development (ecology, socioeconomic development, inter- and intragenerational justice) and on the competencies needed to shape the future (Gestaltungskompetenz). An education that is based on values and responsibility and also on competencies and practical orientation is the best prerequisite for education for sustainable development.

### 5.5.5 Employability

In line with the vision 2020 and the intentions of the STEPS process, the envisaged Institute will relook at programmes, research and innovation initiatives at CUT; teaching and learning; and community engagement.

The Institute will carry out research and innovations, in teaching and learning and community engagement that will make CUT and its graduates distinctive from other UoTs and their students.

## **6. CONCLUSION**

This paper analysed the term vocational pedagogy in order to foreground the discussion on the need to create an office or Institute that would focus on vocational pedagogy at the Central University of Technology (CUT). The paper first provided a global view of vocational pedagogy during the post-colonial era and some negative connotations attached to this type of education.

The paper drew parallels between the British, USA and German experiences and contexts on the competing philosophies underpinning the introduction of, and support for TVET. From these comparisons, the authors drew aspects of the philosophies from these countries to map out the scope and role of the envisaged Institute of Academic and Professional Pedagogy for CUT.

The second part of the paper presented a brief genesis of TVET as found in FET colleges and the curricula and pedagogies of occupational and professional fields offered at UoTs in South Africa, highlighting specifically the underpinning philosophies. The paper therefore analysed the place of academic and professional pedagogy of the occupational fields at UoTs and set the scene for creating the framework and a Centre that would develop scholarship in vocational pedagogy as a niche area in research and innovation, in teaching and learning and in community engagement.

We conclude that vocational pedagogy in the broader context of competency and employability oriented Academic and Professional pedagogy at CUT will enhance the quality in the way CUT functions by promoting research on how we should rethink and re-align the purpose of the institution.

## **7. REFERENCES**

Benner, D. (2003) Wilhelm von Humboldts Bildungstheorie. Weinheim and Munich: Juventa Verlag.

Blaug, M. (1973) Education and the Employment Problem in Developing Countries. Geneva: International Labor Office.

Council on Higher Education (2000). Towards a new higher education landscape: meeting the equity, quality and social development imperatives of South Africa in the 21st century. Pretoria: CHE.



Department of Education (2008). National Education Policy Act (ACT No., 27 of 1996) and The Further Education and Training Colleges Act, 2006 (ACT No. 16 of 2006). Pretoria: Government Printers.

Dewey, J. (1916) *Democracy and Education*. Macmillan, New York.

Du Pre, R. (2010) Universities of technology in the context of the South African higher education landscape. *Universities of technology—deepening the debate*. Kagisano no 7. Pretoria: The South African Council on Higher Education (CHE).

Foster, P.J. (1965) The Vocational School Fallacy in Development Planning. In: Anderson and Bowman (eds.), pp. 142-66.

Grubb, W.N. (1985) The Convergence of Educational Systems and the Role of Vocationalism. *Comparative Education Review* 29 (4), pp.526-548.

Grubb, W.N. (1996) The new vocationalism: What it is, what it could be, *Phi Delta Kappan* 77 (8) (1996), pp. 533–546.

Habermas, J. (1976) *Legitimation Crisis*. London: Heinemann.

Holzbaur, U. (2008) Teaching Quality and Sustainability with Prepared Project Method. In: *International Technology, Education and Development Conference (INTED)*. [http://cdn.intechopen.com/pdfs/10540/InTech-Projects\\_as\\_a\\_method\\_of\\_training\\_teaching\\_and\\_research\\_education.pdf](http://cdn.intechopen.com/pdfs/10540/InTech-Projects_as_a_method_of_training_teaching_and_research_education.pdf) (accessed 1 August 2012)

Gomez L., Sherin, M.G., Griedom, J. & Finn F-L., 2008 (eds.). *The Role of Technology in Pre-service Teacher Preparation*. *International Technology Education and Development Conference Proceedings*, Valencia, *International Association Technology Education and Development Conference (IATED)*.

Idriss, C.M. (2002) Challenge and change in the German vocational system since 1990,

*Oxford Review of Education* 28 (4) (2002), pp. 473–490. Full Text via CrossRef | View Record in Scopus | Cited By in Scopus (6).

Jonas, H. (1984) *Das Prinzip Verantwortung: Versuch einer Ethik für die technologische Zivilisation* suhrkamp. Frankfurt.

Kantor, H. (1986) Work, education, and vocational reform: the ideological origins of vocational education, 1890–1920, *American Journal of Education* 94 (4) (1986), pp. 401–426. Full Text via CrossRef.

Kliebard, H.M. (1999) *Schooled to Work: Vocationalism and the American Curriculum, 1876–1946*, Teachers College Press, New York (1999).

Lategan, L.O.K. & Holzbaur, U.D. (2010) The entrepreneurial university benefit or threat? Paper read at the 3rd National Entrepreneurial Conference. Bloemfontein. Central University of Technology, Free State. 24-25 Augustus 2010.

Lewis, T. (1998) *Toward the 21st century: Retrospect, prospect for American vocationalism* (Information Series No. 373). Columbus: The Ohio State University, ERIC Clearinghouse on Adult, Career, and Vocational Education.

Lewis, T. (2009) *Towards reclaiming the high ground in the discourse on vocationalism in developing countries*. Department of Learning, Cognition and Education, Valsayn Campus, University of Trinidad and Tobago, Valsayn, Trinidad and Tobago. Available online 23 February 2009. URL

Mthembu, T.Z. (2010) *STEPS (Strategic Transformation of Educational Programmes and structures) Learnings from the Conference, for the curriculum transformation Workshop*. Central University of Technology, Free State, Bloemfontein.

Oakeshott, M. (1962) *Rationalism in politics and other essays*. London: Methuen.

Odora-Hoppers, C.A. (2010) *From Vocational Pedagogy to Life Long Learning in a University of Technology. Some Reflections and Propositions for Innovation*. Paper presented at the Central University of Technology, Free State, Bloemfontein. 11 November 2010.

Republic of South Africa (2007) *The Higher Education Qualifications Framework*. Pretoria: Government Printers.

Ryle, G. (1949) *The Concept of Mind*. New York: Hutchinson's University Library.

Winch, 1998 C. Winch, Two rival conceptions of vocational education: Adam Smith and Freidrich List, *Oxford Review of Education* 24 (3) (1998), pp. 365–378. Full Text via CrossRef | View Record in Scopus | Cited By in Scopus (5)

Winch, C. (2006) Georg Kerschensteiner—founding the dual system in Germany, *Oxford Review of Education* 32 (3), pp. 381–396. Full Text via Cross Ref | View Record in Scopus Cited By in Scopus (3)